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Worst Drought on Record Strikes Southern Brazil

By James A. Truran

The worst drought on record has hit most of Brazil's agriculturally rich southern states, in many cases sharply cutting into output of soybeans, corn, rice, and cotton. The impact of the drought is likely to reduce Brazil's foreign exchange earnings from agricultural exports by about $1.5 billion this year. Imports needed to cover drought-induced losses will approach $300 million.

The worst drought on record in southern Brazil has sharply reduced output of some of the country's major commodities—soybeans, corn, rice, and cotton—and has clouded Brazil's foreign trade surplus prospects for 1978.

Agricultural products normally account for about two-thirds of Brazil's total exports. According to Brazilian Government estimates, foreign exchange earnings from agricultural exports will be off by as much as $1.5 billion this year to $6.0-$6.5 billion owing largely to production losses caused by the drought.

The lower world price for coffee is also an important factor contributing to the lower export forecast.

Agricultural imports needed to cover losses from the drought are forecast at $300 million.

Brazil's agricultural sector growth in 1978 will increase only slightly, if at all, in sharp contrast to the impressive 9.6-percent gain in 1977.

The January-May 1978 drought has hit the important crop-producing States of Paraná, Rio Grande do Sul, Santa Catarina, and—to a lesser extent—Goias, southern Mato Grosso, and regions of São Paulo.

These States account for the bulk of all commercial agricultural output in Brazil. Virtually all of Brazil's soybeans and wheat, nearly two-thirds of its corn, and over one-half of its rice and coffee are grown in the regions affected by the drought. In addition, the area is also a major cotton-producing center and cattle producer.

The impact of the drought on various commodities:

Soybeans. The USDA places Brazil's 1978 soybean crop at roughly 10 million metric tons, or somewhat above the more pessimistic estimate of 8.5 million tons given by the Foreign Trade Department of the Bank of Brazil (CACEX).

The soybean production decline came despite a 7-percent increase in planted area, and this is the first time since 1968 that Brazil's soybean crop has not increased.

Most of Brazil's soybean regions received excessive rainfall during the November planting season, but hot dry weather hit the principal growing regions in mid-December.

Throughout the remainder of the growing season, these regions received spotty showers, but little or no heavy rainfall.

The hot dry weather caused early flowering, with many pods growing too close to the ground to be harvested.

Field losses during harvesting were substantial, and the product that was harvested contained a high number of green beans, which lowered the protein and oil content.

Because of the short crop, export registrations for soybean oil and soybeans were closed early in the marketing year, and there currently is a ceiling of 3.8 million tons of export registrations of soybean meal.

Should the soybean crop turn out to be more than the pessimistic estimates, export registrations for soybeans and products could be reopened toward the end of the year.

Even if this were to occur, exports from this year's crop will be down substantially from those of last year. Soybean exports are anticipated to be down by about 2 million tons, soy-

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bean meal exports down by 300,000-500,000 tons, and soybean oil exports down by 120,000-170,000 tons.

Some trade and Government officials are anticipating even greater declines in exports.

The reduced soybean crop means that Brazil's rapidly growing crushing industry will be operating with considerable excess capacity. Total crushing capacity is now in the area of 13 million tons, but actual crush will be around 8 million tons—perhaps less.

There has been considerable discussion regarding the possible importation by Brazil of soybeans later this year. On February 28, the Brazilian Government authorized the import of soybeans through the end of the calendar year without the payment of import duties.

Soybean imports would provide raw material for Brazil's crushing industry, and the meal and oil would be exported. To date, no imports have been made, but some Brazilian officials and trade representatives believe 100,000-200,000 tons of soybeans will perhaps be imported later this year.

The quantity and quality of soybean seeds available for the 1978/79 soybean crop have been adversely affected by the drought. The germination rate and vigor of the seeds to be used for the 1979 crop will be reduced, and yields next year could be somewhat below average—even should the weather turn out to be normal. No imports of soybean seeds are contemplated at this time.

Corn. This is Brazil's most widely produced crop. However, producers in the region affected by the drought are the most technically advanced and normally have the highest productivity.

Corn output, which was a record 18.8 million tons in 1977, will be reduced to around 14.3 million tons in 1978, with potentially serious consequences for Brazil's rapidly developing poultry and swine industries.

The corn shortage this year has resulted in doubling of prices and a sharp reduction in feed use of corn, particularly that portion that normally remained on farms.

Corn disappearance in Brazil in 1978/79 consequently is estimated at 15.8 million tons, with nearly 12.8 million tons being used as feed.

The effects of corn and other animal feed shortages on pork and poultry production are still unknown. It is likely that there will be no growth in pig numbers in 1978, which in turn would limit pork production next year. Commercial broiler production increased 14.5 percent in 1977 and a 10-percent gain was anticipated for 1978. Now, however, a smaller increase appears more likely.

In recent years, Brazil has exported well over 1.0 million tons of corn annually, but this year corn imports will be needed to close the gap between the reduced crop and growing demand.

The Brazilian Government has authorized the importation of up to 1 million tons of corn, although many analysts do not believe this much will enter Brazil.

There are severe logistical problems in the ports through which the corn would pass—Santos, Paranagua, and Rio Grande. These ports are better equipped for the exportation of grains and oilseeds. In addition, they are also important entry ports for large wheat imports.

Corn stocks are expected to be drawn down to the bare minimum in late 1978 and early 1979 in anticipation of a much larger crop next year. The Brazilian Government is expected to take every possible step to minimize corn imports.

Rice. Brazilian rice output in 1978 will be down 10 percent from original estimates to roughly 7.5 million tons. The decrease is the result of a small drop in area because of several years of relatively low prices, as well as the effects of the drought.

Except for Rio Grande do Sul—where the rice crop is irrigated—virtually all of Brazil's rice is of upland varieties. The major producing areas in western Paraná, southern Mato Grosso, and Goias that provide the export surpluses experienced dry weather. Both output and quality will be lower this year.

Brazil exported about 400,000 tons of rice in 1977, but in view of the lower 1978 output, exports will be cut sharply next year.

Rice imports are unlikely in view of the unusually high—1.1 million tons—carryover from previous harvests. These stocks, when added to 1978 outturn, provide a supply availability of 5.9 million tons (milled basis), compared with consumption of 5.6 million tons (milled basis).

Cotton. In recent years, southern Brazil's cotton crop has accounted for about 70 percent of total Brazilian production.

Planted cotton area in 1977/78 in southern Brazil was down about 10 percent from that of 1976/77. Production in the region was originally forecast at 360,000 tons, but as a result of the drought the current estimate is only 290,000.

The northeast Brazil crop harvested in July-September 1977 was 160,000 tons, so the country's total 1977/78 cotton output is now placed at 450,000 tons, down 100,000 tons from the previous crop.

The short crop means Brazil will export little cotton during the coming marketing season. Supplies are sufficient for domestic mills, but cotton prices are high—a factor that could affect the competitive position of Brazil's cotton textile exports. The mills' request for authorization to import cotton so far has been denied.

Coffee. Because of their deep, extensive root systems, coffee trees in the drought-stricken areas were not affected as seriously as field crops.

In addition, the trees in Paraná and parts of São Paulo were either stumped down at ground level or severely pruned after the 1975 freeze. Today, these trees are about half-grown, but are supported by a mature root system that has enabled them to weather the drought period without severe loss.

The initial Brazilian Coffee Institute (IBC) forecast for the 1978/79 coffee crop (harvested May-August 1978) was 20.7 million bags (60 kg each). On May 12, the IBC announced this crop would be down at least by 2 million bags from the initial estimate because of the drought.

On the same day (May 12), the Ministry of Agriculture released an estimate of 17.8 million bags for the current crop.

The Office of the U.S. Agricultural Attaché in Brasília currently estimates the 1978/79 crop in the range of 19.5 million to 21.5 million bags. The harvest will be monitored closely during the next 3 months and adjustments—if warranted—will be made to this estimate.

The drought is not expected to have a significant

impact on the level of coffee exports in 1978. Expected 1978 output, plus current stocks, will enable Brazil to meet the announced export target of 1 million bags per month.

Heavy rains May 15-17 in coffee-producing areas of Paraná and São Paulo will facilitate flowering of the coffee trees for the 1979 harvest, but will have little effect on the size of the 1978 harvest.

Sugar. Sugarcane yields will be down some 10 percent in certain regions of São Paulo hit by the drought. There is an abundant supply of sugarcane, however, and total sugar output for the 1978/79 sugar marketing year will not be adversely affected. A substantial portion of Brazil's sugarcane will again be allocated to alcohol production this year. The Government has announced a production quota of 7.2 million tons (raw and refined) for the 1978/79 year.

Beans. Brazil's dry bean production was not affected substantially by the dry weather. The year's first crop, *das aguas*, was harvested in the south and production is estimated at 1.2 million tons. The second crop, *das secas*, might be somewhat lower than that of last year if dry weather continues and farmers reduce area. Currently, imports are not being contemplated by the Government.

Peanuts. Brazil's peanut production was only marginally affected by the drought, as the first crop—accounting for most of production—was already mature before drought conditions became serious.

However, the drought will put a dent in the second crop, which will be down about 15,000 tons from earlier expectations.

Total 1978 peanut production is now estimated at around 345,000 tons—100,000 tons more than that of 1977. The increase is primarily a result of greater planted area induced by good prices paid last year.

Tobacco. Brazil's total tobacco production in 1978 is forecast at 315,000 tons. Output of southern Brazil's cigarette leaf tobacco is estimated at 232,000 tons, up 4 percent from last year's.

The drought had little impact on total tobacco outturn. Output of air-cured cigarette leaf varieties, burley, and Galpão Comum was down about 4,000 tons because of the dry weather.

Citrus. Brazil's main citrus belt in the northeastern part of São Paulo State lies outside the hardest hit drought area. Even this area, however, has been without substantial rains since March.

As a result, production of oranges in the State of São Paulo now is estimated at 115 million boxes (90 lb each), down somewhat from earlier expectations.

However, this will not affect exports of frozen concentrate orange juice because the crop—even at its slightly reduced level—is a record one and should be more than enough to supply processing industry needs.

Beef. Brazil is on the upswing of the cattle cycle this year, and it is expected that slaughter will decline as cattlemen rebuild herds in response to the current favorable prices.

Initial forecasts are for a drop from 12.25 million head slaughtered in 1977 to 11.6 million head in 1978. A continuation of drought conditions, however, could cause slaughter to rise somewhat above the forecast level because of the inability of parched pastures to hold the expanded herd.

Milk. Production of milk in Brazil normally declines during the second half of the year when pasture conditions are poor because of the dry season in central Brazil and cold weather in the south.

This year, pastures will be in poorer shape than usual. As a result, it is unlikely that Brazil's dairy herds will be able to produce all the milk needed to meet the country's rapidly rising demand for dairy products.

Castorbeans. Reportedly not affected by the drought, Brazil's castorbean production is expected to be 360,000 tons in 1978—up 57 percent from 1977's short crop. Only about 40 percent of the total crop is grown in the drought-stricken areas of southern Brazil.

Total castor oil exports in 1978 are forecast at 120,000 tons, up 19,000 tons from those of 1977.

Wheat. Brazil's wheat imports in 1978 are expected to reach a record of approximately 4.5 million tons, reflecting both the low 1977 harvest and prospects for another poor crop later this year. Thus far in 1978, the United States has supplied about 85 percent of Brazil's wheat imports.

Brazil's wheat production in 1978 is not expected to improve significantly over the low 2-million-ton output of 1977. Its 1979 import requirement is expected to equal at least the 1978 level.

Wheat seeding in western Paraná has been suspended for some time, with approximately 45 percent of the area sown.

Field observations indicate that of the wheat already sown, about 70-75 percent will be lost despite the recent reoccurrence of rain.

There is still time to resume seeding in western Paraná, but late-planted wheat faces increased risk of disease losses and—more importantly—will delay the planting of soybeans. However, farmers have indicated their intentions to replant wheat.

In Rio Grande do Sul, the planting season is somewhat later than that of Paraná—reaching its peak in early June. The continued dry weather has slowed land preparation; however, rains in recent days have improved conditions.

Barley in Rio Grande do Sul is also being affected and production could fall short of earlier estimates.

The economic effects of the drought losses will be felt in many areas of the Brazilian economy.

Although agriculture directly contributes only 11 percent to the net internal product, some 55 percent of the Brazilian population is linked to agriculture—either directly on the farm or indirectly in transportation, processing, marketing, and agriculture-related industries such as farm machinery, chemicals, and fertilizers.

According to trade reports, sales of agricultural inputs are weak and farm machinery manufacturers report unusually heavy stocks. Employment in transporting farm products and in warehouses reportedly is off owing to the reduced agricultural output.

The Brazilian Government has adopted several measures designed to cope with the effects of the drought. In the credit area, the crop insurance program (PROAGRO) will be streamlined to reduce the time participants must wait for reimbursements.

In addition, a special credit line of Cr$600 million was established to aid those hardest hit by the drought. Repayment of production loans has been postponed for 2 years and investment loan repayments delayed for 1 year. □

FAS Dietetic, Health Food Shows Set For Zurich, Stockholm

Sweden and Switzerland have strong health food markets and U.S. manufacturers and exporters of such products will have the opportunity to meet tradesmen in these countries at USDA exhibits to be held in September and October.

These events, the first dietetic and health food shows ever held by the Foreign Agricultural Service, have as their objectives:

- To introduce these U.S. products to importers and sellers not yet acquainted with them
- To renew the relationship with those who are familiar
- To generate immediate sales of about $200,000
- And produce sales totaling about $1 million in the following 12 months.

More than 15 U.S. manufacturers are expected to participate in the exhibits. The Swiss exhibit will be held at the Zurich Hilton, September 26-27, and the Swedish event at Stockholm's Sheraton Hotel, October 3-4.

Although exports of U.S. agricultural products to Switzerland reached a record $240 million in 1977 (about $35 million in consumer-ready foods) and totaled $94 million to Sweden ($45 million in prepared foods), only a small share of these exports was health or dietetic foods. In fact, less than 10 so-called natural products were imported by Sweden and sales to Switzerland were similarly small. However, it is believed that U.S. exports to the Swiss and Swedish health food markets have substantial growth potential.

Health food sales in Sweden totaled $61.7 million in 1977, and are expected to climb to $115 million by 1980. About 70-80 percent of these health foods are currently imported. About 75 percent came from Germany and most of the rest from Switzerland.

Swiss health food sales in 1977 were some $160 million, and are expected to grow steadily in the future.

Health foods were introduced in Switzerland in 1899, when the first health food store was opened in Zurich. There are now 360 Swiss health and diet food stores affiliated with the country's major health store association. In addition, all major department stores with food sections carry some line of health and/or diet foods. Major chain stores number some 50 health food outlets and independent food stores about 500.

The association represents all trade categories except major food and department chains. It also controls the type of products food outlets may sell and still be considered health food stores.

It is believed the most important growth in Switzerland's health food sales is taking place in the country's major store chains—both department and food. These outlets and others handle large numbers of health foods from Germany because requirements that labels be printed in one of the country's official languages—of which German is one—and measures be given in metric tend to ease entry of German health foods.

Health foods were introduced in Sweden in 1936, when the first health food store opened in Stockholm. At the time, health foods were geared to the preferences of vegetarians.

Today there are 280 specialized health food stores in Sweden, each carrying about 2,000 items. Health foods also are sold in special health food departments in regular food stores, discount stores, and various other outlets.

In 1977, specialty health food stores had 72 percent of health food sales and food stores and other outlets, 28 percent. But the regular food store share is rising steadily—it was 23 percent in 1976.

About 50 percent of Sweden's health food sales are of "nature drugs." By legal definition nature drugs are "products, which according to adequate experience, do not involve health risks for human beings or animals, and where the active ingredient is part of a plant or an animal, a mineral, a culture of bacteria present in nature, of a salt or salt solution."

Since January 1, 1978, a new law on nature drugs has been in force in Sweden. Such drugs are now exempt from the Drug Act and can be sold freely by any supplier.

Pharmacies now sell 25 percent of the most common health food categories—such as ginseng, and Russian root—and pharmacies have 70 percent share of their market.

About 38 percent of natural foods sold in Sweden are vitamin and mineral products, followed by herb teas with 12 percent.

Swedish health stores are represented by several trade associations. The largest of these is a consumer group. Other associations represent health food manufacturers and importers, vegetarians, food store retailers, sanitariums, and biological doctors.

The dominant organization is the Health Food Manufacturers and Importers Association, with 35 members.

Although both Switzerland and Sweden have their own import regulations governing all foods, there are a number of rules observed by both countries. Import licenses are required in some instances by the two countries, and use of hormones, additives, preservatives, coloring agents, or stabilizers are prohibited or controlled. Meat import regulations are particularly strict.

In Switzerland, labels must be printed in French, German, or Italian, the country's three official languages. Units of weight, fill, content, and the like must be given in metric measures. Labels must not picture products not contained in food packages. For example, packaged rice must not show meat accompanied by rice, nor should packaged cereals be pictured with fruit.

Sweden requires labels of prepackaged foods to list the weight or number of pieces of the primary ingredients, as well as the weight of other ingredients. Weight and other measures must be in metric measure. Additives should be listed by classes or generic title, and, where applicable, packaging date should be given. Other special information required by the National Food Law also should be provided.

To help prospective ex-

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Despite Big Harvests, Korea's Corn, Soybean Imports Remain High

Korea stood No. 6 as a market for U.S. farm exports in 1977, taking record volumes of this country's corn, soybeans, and tobacco. At the same time, the United States was a minor market for Korean farm products. Output of some of Korea's crops were high; some set new records.

Korea was the sixth largest export customer for U.S. farm products in 1977. The Asian country imported record volumes of corn, soybeans, and tobacco—mostly from the United States—although its own production of corn and tobacco set new records and its soybean crop was larger than the previous one.

In 1977, Korea's agricultural imports rose 18 percent above the 1976 level to $1.489 billion, 70 percent of the total coming from the United States. These included rice, wheat, barley, soybeans, corn, tobacco, hides, cotton, and dairy cattle.

In most cases, the United States provided the largest import share. In the case of soybeans, 100 percent came from the United States, 80 percent of the hides, and 95 percent of the cotton. In the case of dairy cattle, Korea imported 12,000 head—about 83 percent—from the United States.

Korea's agricultural exports in 1977 were estimated at $249.5 million, an 18-percent rise over 1976's and 17 percent greater than the 1977 export target. The United States was a minor market for Korea's farm products, taking mostly tobacco, ginseng tea, canned mushrooms, and Chinese specialty foods.

Korea's total exports and imports also were higher in 1977 than in 1976. Imports are estimated at $10.256 billion in 1977, 25 percent more than the previous year's total, and exports increased by 28 percent to $10.007 billion.

Although Korea's economy was strong in 1977, it grew at a slower rate than in the previous year. The country's gross national product—equal to about $31.4 billion—grew by 10.3 percent (in real terms) in 1977, compared with a 15.2 percent growth rate in 1976. An easing in the rate of growth of the mining and manufacturing sectors—and of less importance, a poor barley crop—accounted for the slowdown in the overall rate of gain.

The agriculture, fisheries, and forestry sectors grew by 3.4 percent in 1977, compared with 8.3 percent in 1976. Growth in mining and manufacturing was 11.2 percent, the most sluggish pace in 4 years, compared with 25.1 percent in 1976. A slump in Korea's textile industry accounted for most of the manufacturing sector slowdown.

Production. Generally, Korea's food supply was abundant in 1977, aided by the record outturns of rice, millet, and corn. The final estimate of the 1977 **rice** crop set production at slightly more than 6 million tons (milled basis). Harvested area was 1.2 million hectares, including paddy and upland rice area.

These figures represent a 15.2 percent rise in outturn and a slight increase in area, compared with the 1976 levels. Korea's rice yields also set a world record among major rice-producing countries by climbing to 5,310 kilograms of brown rice per hectare.

A number of factors contributed to the record rice crop. More International Rice Institute varieties were planted; the area of rice seed grown under vinyl cover was increased; there was an adequate supply of fertilizer and other agricultural chemicals available and used; and farmers adopted numerous modern production techniques.

Because of bumper crops in each of the past 4 years, Korea's rice stocks may rise to an estimated 2.4 million tons in October 1978. As a consequence, the Government is promoting greater use of rice by the brewing, confectionery, and food-processing industries.

In addition, students who formerly could only bring dishes of mixed grain in their school lunches, now may bring lunches of all-rice dishes.

Winterkill in 1976 reduced the 1977 **barley** crop by more than 50 percent from the year-earlier level to 813,610 tons. Harvested area and yield also were lower—515,600 hectares, a drop of 28 percent, and 1,580 kilograms per hectare, a 37-percent drop. The poor 1977 crop has caused many farmers to divert barley land to production of other commodities such as potatoes and tobacco.

Satisfactory prices may well cause a swing back to barley production. In 1978, barley output is expected to recover to nearly 1.6 million tons.

Winterkill also caused a 46-percent drop in Korea's **wheat** crop, which plunged to 44,660 tons. Despite a drive by the Government to increase wheat plantings,

Based on dispatch from Office of U.S. Agricultural Attaché, Seoul.

Far left: Korean pig enroute to market. Pigs are "anesthetized" with generous amounts of alcoholic beverage, tied, and transported on bicycles or motorcycles. Left: Harvesting barley. Korea planned to import 800,000 tons of barley in 1977 because of the poor crop. However, the size of the rice crop cuts imports to half that.

dissatisfaction with producer prices is causing many farmers to plant other crops. However, the outlook for 1978 is that wheat production will recover to at least the 1976 level.

Korea's **corn** production record of 113,000 tons was 33 percent over the 1976 outturn, largely because of increases in area and in use of improved varieties. Corn output has been rising steadily since 1975, prompted by Government promotional policies and a favorable Government purchase price.

Korea wants to boost corn production and area. However, it it unlikely that an output level higher than 150,000 tons will be reached in the near future, largely because of the land shortage in Kangwan-do Province, Korea's major corn-producing region.

The 318,735-ton **soybean** crop of 1977 was 8 percent higher than the 1976 level, largely because of greater use of improved varieties, favorable weather, and a 1 percent expansion in area to 250,620 hectares.

Yields reached a new peak—1,270 kilograms per hectare, 6 percent over the 1976 level. Soybean production had been dropping since 1975, so it is too early to tell whether the 1977 record marks the beginning of an uptrend.

Korea's **tobacco** production record—144,532 tons—was 29 percent higher than the 1976 level. Area also was greater in 1977, fertilizer use adequate, and weather favorable in May and July, combining to bring output to its current high.

Flue-cured leaf production in 1977 was 92,436 tons (+21 percent); burley, 51,574 tons (+47 percent); and native light sun-cured leaf (Hyangcho tobacco, 496 tons (+45 percent).

Total planted tobacco area in 1977 was 62,802 hectares, including 43,811 hectares of flue-cured leaf, 18,580 hectares of burley, and 411 hectares of light sun-cured leaf. All of these areas represented gains—11 percent for flue-cured, 23 percent for burley, and 1 percent for light sun-cured—for a total gain of 14 percent.

Fresh **mushroom** production in 1977 was estimated at 36,136 tons, a 4 percent rise over that of 1976. Total area—at 251 hectares—was 7 percent higher than in the previous year. Canned mushroom production from this fresh mushroom outturn is estimated at 1.85 million cartons (basis 24 16-oz. cans), 5 percent above 1976's.

Korea's raw **cotton** output is estimated at 1,890 tons of lint cotton, a drop of 33 percent from the 1976 production. All of Korea's raw cotton production is used for cottage-industry manufacture of quilts and handwoven cloth.

Korea's **cattle** herd was estimated at 1.60 million head at the end of 1977, some 3 percent greater than at the end of 1976. Most of the rise came as an outcome of the domestic cattle multiplication program, although large cattle imports also played a part.

Swine numbers were 1.9 million head at the end of December 1977, 1 percent higher than the December 1976 figure. This rise represented a slowdown in the rate of growth and was the result of overlarge pork stocks in the early part of 1977. However, since September 1977, domestic and export demand for pork has increased significantly. In response to the higher domestic prices, which resulted from this strong demand,

the Korean Government has suspended pork exports to Japan—Korea's major pork market.

Estimated beef output in 1977 was 83,038 tons, 9 percent more than the 1976 level, but the volume was insufficient to meet domestic demand. Imported beef was used to close the gap. Pork production is estimated at 122,000 tons, 8 percent greater than 1976 output. Estimated poultry meat production in 1977 was 71,000 tons, an 18 percent increase over the year-earlier figure.

Imports. Korea's **rice** imports in 1977 totaled 64,119 tons, of which 61,281 tons were imported under the P.L. 480 program. The balance was bought on commercial terms from Thailand and the Philippines for research and industrial use. Korea had indicated there will be no rice imports in 1978, except for small amounts of glutinous and unhulled rice.

With the exception of 21,000 tons of feed **wheat** imported from Australia and 10,000 tons from Canada, all of Korea's 2 million tons of imported wheat in 1977 came from the United States. Based on customs data, 1977's wheat import totals were 4 percent greater than in 1976.

In the summer of 1977, the poor **barley** crop forced usage of more wheat in mixed feeds, and wheat imports rose sharply. Wheat imports also gained when the Government abandoned its ruling that required wheat flour to contain 5 percent barley flour. However, these gains were partly offset by a change in policy that permitted brewers to use rice in place of wheat and corn.

In 1978, brewers will likely boost their use of rice for brewing and in consequence wheat imports are expected to fall by more than 20 percent in 1978.

The Korean Government originally planned to import 800,000 tons of barley (polished basis) in 1977 because of the poor crop. But the size of the rice harvest enabled the Government to reduce its planned barley imports to slightly over 400,000 tons (July-June).

The United States provided all of Korea's imported **soybeans**—150,600 tons (based on port arrivals). This 7-percent higher total included 109,385 tons for crushing, 15,814 tons for food-industry use, 5,401 tons for military use, and 20,000 tons for price-control purposes.

Korea's growing livestock industry is demanding larger volumes of soybean meal and the number of crushing plants in the country is slowly growing. At the present time there is one large crusher and several smaller ones. In 1977, these small crushers processed 8,200 tons of soybeans. The balance of the country's need was met from output by the larger firm.

Korea's **feedgrain** imports have grown steadily in recent years, pushed along by the growth of its livestock industry. Between 1975 and 1976, these imports grew by about 64 percent. By 1977, they had grown another 46 percent to its 1.4 million-ton (arrival basis) record. This total included 1.09 million tons of corn for formula feed production and 312,167 tons for processing.

With the exception of 23,100 tons of grain sorghum imported from Argentina, the United States supplied all of Korea's feedgrain imports.

Korea's 1977 leaf **tobacco** imports mostly came from the United States, which increased its share of the 8,181-ton market from 55 percent in 1976 to 58 percent the following year.

Valued at $36 million—38 percent more than in the previous year—Korea's total imports included leaf from Turkey (2,057 tons of Izmir tobacco), Yugoslavia (500 tons of Basma leaf), Greece (900 tons of Basma), and the United States (3,000 tons of flue-cured, 1,720 tons of burley, and 4 tons of cigar leaf).

Korea imports U.S. tobacco to mix with domestic leaf to improve the flavor of tobacco products manufactured in Korea.

In 1977, **cotton** imports totaled 218,000 tons (customs clearance basis), a 4-percent increase over the previous year's level, with the United States providing about 95 percent of these imports, about the same as in 1976.

Cotton is one of Korea's most important imports. In addition to the amount of cotton products used domestically, about $589 million worth of cotton products were sold overseas.

Korea planned to import 20,000 head of dairy **cattle** in 1977 to help meet the growing demand for dairy products; however, only 12,000 head were brought in during 1977, owing to Korea's lack of port handling facilities. About 10,000 of these came from the United States, seven times more than in 1976.

In 1978, the Korean Government plans to import 25,000 head if facilities can be developed to handle the influx. Also, quarantine stations are being built near Inchon and Pusan. Some of these cattle will be of U.S. origin.

Korea imported a record of 117,214 tons of **hides** in 1977, 1 percent greater than in the previous year. The United States pushed its market share from 1976's 72 percent to 80 percent in 1977. □

"In most cases, the United States provided the largest . . . share (of Korea's imports in 1977). In the case of soybeans, 100 percent came from the United States, 80 percent of the hides, and 95 percent of the cotton."

Gains Seen For Philippine Coconut Oil Output, Trade

Despite low rainfall throughout the country during the past 3 years, Philippine coconut production this year is forecast to rise 3.5 percent from the 1977 level. As a result, production of coconut oil and cake and meal also should be up, and exports of these products may reach new highs.

With bearing tree numbers on the rise, copra production this year is seen gaining to 2.4 million metric tons from the 2.32 million of last year, when output fell 12 percent from the 1976 record as a result of abnormal rainfall. Production of coconut oil likewise is seen rising—to 1.19 million tons from 1.09 million in 1977, and that of cake and meal may reach 603,000 tons, against 552,000.

According to the Philippine Bureau of Agricultural Economics, coconut plantings as of mid-1977 totaled 2,714,000 hectares versus 2,521,000 in mid-1976. There were 376,920,000 planted trees in 1977, compared with 340,134,000 in 1976. Some 314 million of these trees were fruit bearing in 1977, compared with 298 million in 1976. Further growth in bearing trees numbers is estimated for 1978.

These gains should permit export growth this year to around 900,000 tons of coconut oil from 776,000 in 1977, and 500,000 tons of cake and meal from 421,000. Shipments of copra, on the other hand, are seen declining to 450,000 tons from 535,000 in 1977 as a result of the growing pressure to crush copra domestically and export the end products.

Last year, registered exports of coconut oil declined 5 percent from the 1976 record of 821,545 tons. The United States took 470,247 tons, or about 61 percent of the total, in contrast to 88 percent in 1969. Western Europe was the second largest buyer, absorbing 20 percent of total exports, against only 11 percent in 1969.

Copra meal exports, on the other hand, went entirely to Western Europe (417,752 tons) and Japan (3,593 tons). □

Ontario Boosts Leaf Price

Ontario's flue-cured tobacco growers will benefit from substantial increases in the price and production levels of their 1978 crop.

On April 7, following 4 days of negotiations, the Ontario Flue-Cured Tobacco Growers' Marketing Board and the Canadian Tobacco Manufacturers' Council (CTMC) reached an agreement on the price and conditions for Ontario's 1978 output. Ontario accounts for most of Canada's annual production of flue-cured tobacco.

Under the new agreement, the CMTC will pay a guaranteed minimum price of Can$1.065 per pound for the target production level of about 230 million pounds (about 104,000 metric tons), a significant increase over the terms of 1977—Can-$1.00 per pound on 205 million pounds—equal to almost 93,000 tons.

Most of the 1978 production increase will move into export channels. The CTMC estimates that about 45,000 tons from the 1978 crop will enter export markets, compared with 31,524 tons from the 1977 crop. □

USSR's Herd Numbers, Meat Output Sets Records

The Soviet Union's livestock inventories and product output on State and collective farms hit new highs during the first quarter of 1978. The increase in hogs and poultry led an across-the-board advance in livestock numbers while a sharp percentage rise in poultry meat production paced gains in Soviet meat outturn.

In the socialized sector, livestock inventories on April 1, 1978, reached record high levels in all reported categories, according to a report by Angel O. Byrne, Soviet Union Group, Centrally Planned Countries Program Area, ESCS.

Poultry and hog numbers registered the largest gains, up 12 and 9 percent, respectively, over the year-earlier level, to 575.2 million and 53.7 million head. Next biggest increase occurred in total cattle numbers, which rose 3 percent to 90.0 million. Also, 2-percent boosts were reported in cows, to 29 million, and in sheep and goats, to 137.4 million.

Accompanying the rise in inventories, the USSR's meat production, live-weight basis, rose to a record 3.88 million metric tons for the first 3 months of 1978, an increase of 5 percent above the corresponding 1977 period. Poultry meat production gained 18 percent to 267,000 tons, also a record high. Beef output jumped 4 percent above the year-earlier level to 2.58 million tons, but still was 1 percent shy of the high recorded in 1976's opening quarter.

Pork production increased 4 percent as well to 946,000 tons, but fell 18 percent short of the first-quarter record realized in 1975. Mutton and lamb output, however, dropped 8 percent from the same 1977 period to 88,000 tons and was considerably below the first-quarter showing of 1976. The decline this year is probably attributable to the poor feed supplies caused by 1977's dry weather in the major sheep raising regions.

Also during January-March 1978, milk and egg production on State and collective farms set new records. Compared with the corresponding 1977 months, milk output rose 3 percent to 13.96 million tons while egg production grew 8 percent to 10.12 billion pieces.

For all of 1977, Soviet total meat production, including that from privately owned livestock, increased nearly 9 percent from 1976's level to 14.8 million tons—just below the record 15.0 million in 1975. Yet, despite this impressive output, the Soviet press reported recently that the USSR's imports of meat and meat products soared from a reduced level of 362,000 tons in 1976 to a record 617,000 last year—20 percent greater than the previous high of 515,000 tons in both 1975 and 1974. □

PRC Drought Threat Seems Less Serious Than Expected

Agricultural officials of the People's Republic of China (PRC), concerned over the status of crops, on April 25 held a national emergency telephone conference on developing drought and crop conditions. However, the official reports gave the impression that the drought was less serious than had earlier been believed.

More was said about ways to combat drought conditions in areas of the North China Plain and the northwest than about the effects of the dry spell.

Vice Premier Kang Shih-en stated that the agricultural situation throughout the country was very good and that the "growth of winter wheat and rapeseed in most places was better than last year's." He also said that "judging from the current situation, there will be a bumper harvest this summer, provided there are no serious natural disasters."

Despite the favorable temperature and rainfall since September 1977 in the Chinese wheat belt, growing conditions have worsened because of below normal precipitation since mid-March, a short freezing period in early April, and 3-day hot spells in mid-April.

The question mark is the effect of drought damage to the northern wheat and fall-harvested crops, and the impact of wet weather on the early rice crop in the south.

The ultimate outcome for winter wheat depends on the arrival of sufficient amounts of precipitation. Recent moderate rains in May helped somewhat. The extent to which wheat areas have been irrigated also is important.

Among the major winter wheat-producing Provinces, Shantung, Honan, Hopeh, northern Anhwei, and northern Kiangsu have fairly extensive irrigation facilities, with watered wheat land in some Provinces amounting to 70 percent of the total.

Spring wheat areas in the northeast and north generally have received normal rainfall and can expect a bumper harvest, if favorable conditions continue through the growing season.

Despite these problems, 1978 wheat production is expected to exceed the poor crop of 1977. However, prospects for exceeding the record 1976 crop of 45 million tons are not bright.

Transplanting of early rice was delayed in the south by wet and cold weather in March. By late April, early rice transplanting was reported making good progress, although excessive rains may have caused more drainage problems and caused some seedlings to rot. But the current situation is generally better than in both 1976 and 1977.

Apparently the dry weather in April in Northern China did not seriously put off scheduled spring sowings of fall-harvested crops, but continuing drought could definitely dim prospects for a bumper autumn harvest.

Because of the disappointing 1977 crop production, the PRC continues to import high levels of wheat.

The PRC purchase in early April of 1 million tons of U.S. wheat, with delivery to begin in May and end in October, was the most notable of these purchases.

Other sales of U.S. com-

Korean Bakers Update Methods

A young baker removing bread from pans in Seoul. Most bakeries in Korea are so-called window bakeries. There are, however, three sizable bakeries serving outlets from centralized locations.

Korea is seeing a changeover in bakery product output and marketing methods as some of the country's so-called window bakeries centralize their operations and increase production.

Most of these bakeries have a small volume, but collectively they number an estimated 2,000 outlets and account for some 40-50 percent of Korea's total bread and confectionery production. The bulk of these operations are small, single-outlet units, but a number of them have several shops. One has 50 sales outlets.

The three largest multi-outlet bakeries in Seoul are considered the pace-setters for the entire industry both in product quality and new product introduction. Collectively they had only 26 outlets in 1975, but in February 1978 the number had mushroomed to 80.

Producing their wares in a central location and distributing them twice daily to their outlets throughout the Seoul metropolitan area, the three firms have boosted their average output by 250 percent since 1975, and the number of their pastry and bread varieties from 295 in 1975 to 574 in 1978.

Overall, the baking industry in Korea has made tremendous progress during the past 10 years in the areas of product quality, sanitation, and product mix, mainly attributable to the leadership provided by the larger multi-outlet baking firms. Much of the industry's technical advice on methods and equipment has been provided by Wheat Associates, USA, the foreign market development arm of the U.S. wheat industry in Asia, and a USDA cooperator. □

modities for calendar 1978 delivery as of May 1, 1978, included 81,000 tons of U.S. cotton for delivery prior to August 1, 1978, and 28,000 tons of soybean oil to be delivered before October 1, 1978. Some of the cotton and soybean oil already has been shipped.

The 1-million-ton purchase of U.S. wheat apparently filled the PRC's import requirements through the summer. Canadian shipments have been running behind schedule and additional quantities during the scheduled delivery period were not available from Canada, Australia, or Argentina.

China has not yet covered its import requirements for the fourth quarter of 1978, which could run as high as 2 million tons. Purchases for that period are likely to be made in the near future. Some of this wheat could come from the United States. □

France's Poultry Meat Exports Still Climbing in 1978

France's poultry meat exports this year are expected to continue their 1977 growth trend, absorbing all or most of the country's projected gains in chicken and turkey meat output.

Exports of chicken meat in 1977 accounted for about 18 percent of domestic output and totaled more than 100,000 tons, largely because of a high level of subsidized shipments to Mideastern countries.

France's egg production, on the other hand, declined for the second consecutive year in 1977 and totaled about 12.7 million units, leaving a net egg trade deficit of 120 million shell-equivalent eggs. □

Slight Decline Seen in World Cotton Output In 1978/79

World cotton production is likely to decline somewhat in 1978/79, primarily because of an expected reduction in U.S. output, according to the U.S. Department of Agriculture.

In a cotton circular issued by the Foreign Agricultural Service, the Department said the world harvest may fall in the range of 59-65 million bales (480 lb net), depending on final plantings and growing conditions.

Foreign production is forecast in the 48-52 million bale range, compared with 49.5 million this season. Foreign area is expected to drop to around 26.7 million hectares, 2.7 percent less than this season. U.S. production is expected to fall between 11 million and 13 million bales, from 14.4 million in 1977/78.

While world cotton prices are about 20 cents a pound below those of a year ago, the upward price movement since November 1977 has apparently encouraged producers not to reduce cotton area as much as earlier planned. Countries expected to plant less cotton in 1978/79 than last season include Brazil, Colombia, Mexico, Turkey, and the United States. Meanwhile, the Soviet Union, India, and Israel plan to seed larger areas to cotton.

World cotton production is estimated at 63.9 million bales in 1977/78, 10 percent above last year's, but slightly less than the record of 64.4 million produced in 1974/75. Production estimates have recently been reduced for the People's Republic of China (PRC) and for Brazil and Colombia, which are just finishing harvesting. PRC production is estimated to have declined 700,000 bales below the 1976/77 crop of 10.8 million bales.

Global cotton consumption in 1977/78 is estimated at 61.4 million bales, compared with 61.5 million last season. Textile demand continues to lag as slow economic growth and strong inflation are reducing consumer purchasing power, particularly in Japan and several European countries. Cotton consumption is expected to show some increase in 1978/79, and could be near the record 62.2 million bales consumed in 1973/74.

World exports in 1977/78 are expected to expand to 18.9 million bales, nearly 1.5 million above 1976/77's. The larger production, which exceeds consumption for the first time in 3 years, is permitting an increase in trade in order to rebuild low stocks in a number of importing countries and to meet sharply increased import needs of the PRC.

World stocks are projected at 23.1 million bales for August 1, 1978, about 2.3 million above the exceptionally low level of a year earlier.

U.S. exports are continuing heavy this season and are expected to reach 5.5 million bales, compared with 4.8 million in 1976/77. With the sharp increase in the 1977 U.S. crop and stable domestic consumption, cotton stocks in the United States will likely increase during 1977/78 to about 5.4 million bales from the low level of 2.9 million on August 1, 1977. □

Continued from page 5

Health Food Shows

porters determine the suitability of their products in a given foreign market, FAS operates a label clearance program. For a fee of $5 per label for each country of interest, FAS will obtain from the appropriate U.S. Agricultural Attaché a ruling whether products bearing such a label will be acceptable for export to that country.

If necessary, advice will be given on required product changes. Other services such as taste testing and test marketing in the proposed foreign market also can be arranged.

For full information, write to Director, Export Trade Services Division, Foreign Agricultural Service, USDA, Washington, D.C. 20250, or (202) 447–6343. □

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20 U.S. Food Firms Exhibit Products at Bogota Show

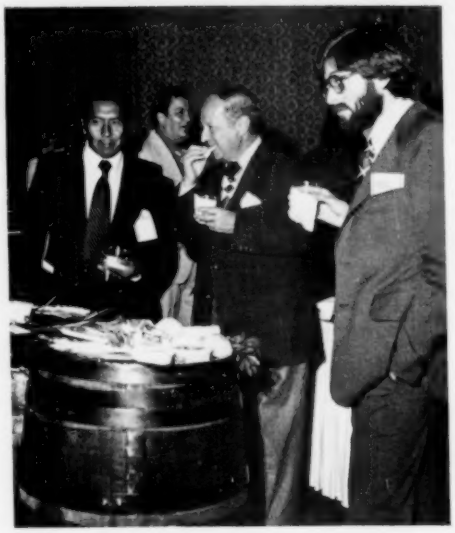
The first U.S. Agricultural Attaché Food Product Display to be held in South America drew 1,025 persons to the Bogotá, Colombia, Hilton Hotel on April 5-6.

Twenty U.S. food firms were represented. Among the U.S. foods on display were fresh deciduous fruits, cheeses, salad dressings, candies, dietetic products, wines, raisins and prunes, soy flour, canned chicken, canned vegetables, nuts, juices, canned soft drinks, and potatoes.

Guests included buyers from hotels, institutions, military food offices, restaurants, catering firms, and private clubs, as well as food wholesalers, retailers, and importers.

The quality, variety, and newness of the products drew favorable comments from many of the guests.

More than 1,000 product inquiries were received, and immediate import orders were placed with several of the exhibiting firms. □



Clockwise from upper left: From left, Levi Turner (FAS exhibit manager), U.S. Ambassador to Colombia Diego C. Asencio, and U.S. Agricultural Attaché Alfred R. Persi greet visitors to the Attaché Product Display; an exhibit representative explains her canned chicken product; guests sampling food exhibit products; a wine and cheese display.